

FORM PTO-1449		Atty. Docket No.: U11.12-0161	Appl. No.: 10/801,940
<p>LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT</p> <p>OCT 11 2005 PATENT AND TRADEMARK OFFICE U.S. DEPARTMENT OF COMMERCE</p>		First Named Inventor:	
		Kang-Hyun Baek	
		Filing Date March 16, 2004	Group Art: 2873

U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
JA						
JB						
JC						
JD						
JE						
JF						
JG						

FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
JH						

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

BWT	JI	"Notification of Transmittal of the International Search Report and the Written Opinion of the International Search Authority for PCT/US2005/007569.
	JJ	
	JK	
	JL	
	JM	
	JN	
	JO	
	JP	
	JQ	

EXAMINER: B. Healy DATE CONSIDERED: 12/02/05

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449		Atty. Docket No.: U11.12-0161	Appl. No.: 10/801,940
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT		First Named Inventor:	
		Kang-Hyun Baek	
		Filing Date March 16, 2004	Group Art: 2873



U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
IA						
IB						
IC						
ID						
IE						
IF						
IG						

FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	Sub Class	Translation Yes No
IH						

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>SMW</i>	II	"High-Resolution Particle Separation by Sedimentation Field-Flow Fractionation", by F. Yang et al., <u>JOURNAL OF COLLOID AND INTERFACE SCIENCE</u> , Vol. 60, No. 3, July 1, 1977, pgs. 574-577.
<i>SMW</i>	IJ	"Synthetic Opals Made by the Langmuir-Blodgett Method", by M. Bardosova et al., <u>PREPARATION AND CHARACTERIZATION</u> , ELSEVIER SEQUOIA, NL, Vol. 437, No. 1-2, August 1, 2003, pgs. 276-279.
<i>SMW</i>	IK	"A Three-Dimensional Optical Photonic Crystal", by S. Lin et al., <u>JOURNAL OF LIGHTWAVE TECHNOLOGY</u> , Vol. 17, No. 11, November 1999, pgs. 1944-1947.
<i>SMW</i>	IL	"Invitation to Pay Additional Fees/Communication Relating to the Results of the Partial International Search for PCT/US2005/007569."
	IM	
	IN	
	IO	
	IP	
	IQ	

EXAMINER: B. Healy DATE CONSIDERED: 12/02/05

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449		Atty. Docket No.: U11.12-0161	Appl. No.: 10/801,940
		First Named Inventor:	
		Kang-Hyun Baek	
		Filing Date March 16, 2004	Group Art: 2873

U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
EA						

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Sub Class	Translation Yes No
	EB						

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>BuHt</i>	EC	S. Noda, K. Tomoda, N. Yamanoto, A. Chutinan, "Full three-dimensional photonic bandgap crystals at near-infrared wavelengths", <i>Science</i> , vol. 289, pp. 604-606, Jul., 2000.
<i>BuHt</i>	ED	Y.A. Vlasov, X.-Z. Bo, J.C. Sturm, D.J. Norris, "On-chip natural assembly of silicon photonic bandgap crystals", <i>Nature</i> , vol. 414, pp. 289-293, Nov., 2001.
<i>BuHt</i>	EE	G.H. Bogush, M.A. Tracy, C.F. Zukoski IV, "Preparation of monodisperse silica particles: Control of size and mass fraction", <i>J. Non-Crystalline Solids</i> , vol. 104, pp. 95-106, 1988.
<i>BuHt</i>	EF	S.L. Chen, P. Dong, G.-H. Yang, J.-J. Yang, "Characteristic aspects of formation of new particles during the growth of monosize silica seeds", <i>Journal of Colloid and Interface Science</i> , vol. 180, pp. 237-241, 1996.
<i>BuHt</i>	EG	W. Stober, A. Fink, E. Bohn, "Controlled growth of monodisperse silica spheres in the micron size range", <i>J. Colloid and Interf. Sci.</i> , vol. 26, pp. 62-69, 1968.
<i>BuHt</i>	EH	D.W. McComb, B.M. Treble, C.J. Smith, R.M. De La Rue and N. P. Johnson, "Synthesis and characterization of photonic crystals", <i>J. Mater. Chem.</i> , vol. 11, pp. 142-148, 2001.
<i>BuHt</i>	EI	P. Ni, P. Dong, B. Cheng, X. Li, D. Zhang, "Synthetic SiO ₂ opals", <i>Adv. Mater.</i> vol. 13, pp. 437-441, Mar. 2001.
<i>BuHt</i>	EJ	P. Jiang, J.F. Bertone, K.S. Hwang, V.L. Colvin, "Single-crystal colloidal multilayers of controlled thickness", <i>Chem. Mater.</i> , vol. 11, pp. 2132-2140, 1999.
<i>BuHt</i>	EK	C.F. Blanford, R.C. Schroden, M. Al-Daous, A. Stein, "Tuning solvent-dependent color changes of three-dimensionally ordered macroporous (3DOM) materials through compositional and geometric modifications", <i>Adv. Mater.</i> , vol. 13, pp. 26-29, Jan., 2001.

EXAMINER:

S. Healy

DATE CONSIDERED:

12/02/05

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449		Atty. Docket No.: U11.12-0161	Appl. No.: 10/801,940
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT		First Named Inventor:	
		Kang-Hyun Baek	
		Filing Date March 16, 2004	Group Art: 2873

U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
FA						

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Sub Class	Translation Yes No
	FB						

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>Burt</i>	FC	E. Yablonovich, Inhibited spontaneous emission in solid state physics and electronics, Phys. Rev. Lett., Vol. 58, pp. 2059-2062, 1987.
<i>Burt</i>	FD	O. Painter, J. Vuckovic, A. Yariv, A. Scherer, J. D. O'Brien, P. D. Dapkus, Two dimensional photonic band gap defect mode laser, Science, Vol. 284, pp. 1819-1821, 1999.
<i>Burt</i>	FE	E. R. Brown, O. B. McMahon, High zenithal directivity from a dipole antenna on a photonic crystal, Appl. Phys. Lett., vol. 68, pp. 1300-1302, 1996.
<i>Burt</i>	FF	B. Temelkuran, M. Bayindir, E. Ozbay, R. Biswas, M. M. Sigalas, G. Tuttle, K. M. Ho, Photonic crystal-based resonant antenna with a very high directivity, J. Appl. Phys., Vol. 87, pp. 603-605, 2000.
<i>Burt</i>	FG	J. G. Fleming, S-Y. Lin, Three dimensional photonic crystal with a stop band from 1.35 to 1.95 μ m, Optics Lett., vol. 24, pp. 49-51, 1999.
<i>Burt</i>	FH	Special Section on Electromagnetic Crystal Structures, Design, Synthesis, and Applications, Journal of Lightwave Technology, Vol. 17, pp. 1944-1947, 1999.
<i>Burt</i>	FI	Special issue of Advance Materials, Vol. 13, no 6, pg. 369, 2001.
<i>Burt</i>	FJ	Special Feature Section on Photonic Crystal Structures and applications, IEEE J. Quantum Electronics, Vol 38, July 2002. Dimensional photonic
<i>Burt</i>	FK	S. John, K. Busch, Photonic bandgap formation and tunability in certain self organizing systems, Journal of Lightwave Technology, vol. 17, pp. 1931-1943, 1999.
<i>Burt</i>	FL	E. Palacios-Lidon, A. Blanco, M. Ibáñez, F. Meseguer, C. López, J. Sanchez-Dehesa, Optical study of the full photonic band gap in silicon inverse opals, Appl. Phys. Lett., Vol. 81, no. 21, pp. 4925-4927, 2002.

EXAMINER:

B. Healy

DATE CONSIDERED:

12/02/05

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449		Atty. Docket No.: U11.12-0161	Appl. No.: 10/801,940
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT		First Named Inventor:	
		Kang-Hyun Baek	
		Filing Date March 16, 2040	Group Art: 2873

U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
GA						

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Sub Class	Translation Yes No
	GB						

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>Burt</i>	GC	B. T. Holland, C. F. Blanford, A. Stein, Synthesis of Highly Ordered Three-Dimensional Mineral Honeycombs with Macropores, Science, Vol. 281, pp. 538-540, 1998.
<i>Burt</i>	GD	H. Yan, C. F. Blandford, B. T. Holland, W. H. Smyrl, A. Stein, General Synthesis of Periodic Macro-porous Solids by Templatized Salt Precipitation and Chemical Conversion, Chem. Mater., Vol. 12, pp. 1134-1141, 2000.
<i>Burt</i>	GE	J. E. G. J. Wijnhoven, W. L. Vos, Preparation of photonic crystals made of air spheres in Titania, Science, Vol. 281, pp. 802-804, 1998.
<i>Burt</i>	GF	D. J. Norris, Y. A. Vlasov, Chemical Approaches to Three-Dimensional Semiconductor Photonic Crystals, Advanced Materials, Vol. 13, Issue 6, pp. 371-376, 2001.
<i>Burt</i>	GG	F. J. P. Schuurmans, D. Vanmaekelbergh, J. van de Lagemaat, A. Lagendijk, Strongly Photonic Macroporous Gallium Phosphide Networks." Science Vol. 284, pp.141-143, 1999.
<i>Burt</i>	GH	Y. Matsui, M. Ishino, T. Fujita, H. Serizawa, T. Kajiwara, A novel measurement technique of loss and facet reflectivity for semiconductor optical waveguides, SPIE Vol. 651, Integrated Optical Circuit Engineering III, 1986.
<i>GMV</i>	GI	S. G. Johnson, J. D. Joannopoulos, Block iterative frequency domain method for Maxwell's equations in a plane wave basis, Opt. Express, Vol. 8, 173-190, 2001.
<i>Burt</i>	GJ	P. M. Bell, J. M. Pendry, I. Martin-Moreno, A. J. Ward, A program for calculating photonic band structures and transmission coefficients of complex structures, comput. Phys. commun., Vol. 85, pp. 306-322, 1995.
<i>SMW</i>	GK	K. R. Williams, R. S. Muller, Etch rates for micromachining processing, J. Microelectromechanical Systems, Vol. 5, pp. 256 -269, 1996.

EXAMINER:

R. Healy

DATE CONSIDERED:

12/02/05

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449		Atty. Docket No.: U11.12-0161	Appl. No.: 10/801,940
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT		First Named Inventor:	
		Kang-Hyun Baek	
		Filing Date March 16, 2004	Group Art: 2873

U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
HA						

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Sub Class	Translation Yes No
	HB						

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

<i>Smith</i>	HC	"Photonic Band Engineering in Opals by Growth of Si/Ge Multilayer Shells", by F. Garcia-Santamaria et al., Adv. Mater. 2003, 15, No. 10, pgs. 788-792.
<i>Gant</i>	HD	"Tuning the Properties of Photonic Films from Polymer Beads by Chemistry", by M. Egen et al., Chem. Mater. 2002, 14, pgs. 2176-2183.
<i>Burk</i>	HE	"Synthesis and Characterization of Monodisperse Core-Shell Colloidal Spheres of Zinc Sulfide and Silica", by K. Velikov et al., Langmuir 2001, 17, pgs. 4779-4786.
	HF	
	HG	
	HH	
	HI	
	HJ	
	HK	
	HL	
	HM	
	HN	

EXAMINER: *K. Hyun Baek* DATE CONSIDERED: *12/02/05*

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449		Atty. Docket No.:	Appl. No.:
		U11.12-0161	10/801,940
<p>LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT</p> <p>O P E AUG 05 2004 PATENT & TRADEMARK OFFICE U.S. DEPARTMENT OF COMMERCE</p>		First Named Inventor:	
		Kang-Hyun Baek	
		Filing Date	Group Art:
		March 16, 2004	2873

U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
BMK	AA 2001/0019037	7/2001	Zakhidov et al.	216	56	
BMK	AB 2002/0024163	2/2002	Fu et al.	264	42	
SMK	AC 2002/0045030	4/2002	Ozin et al.	428	173	
BMK	AD 2002/0062782	5/2002	Norris et al.	117	3	
BMK	AE 2002/0126713	9/2002	Ibanescu et al.	372	6	
SMK	AF 2002/0164137	11/2002	Johnson et al.	385	125	
SMK	AG 2002/0173610	11/2002	Aert et al.	526	303.1	
SMK	AH 2002/0176676	11/2002	Johnson et al.	385	125	
BMK	AI 2002/0189947	12/2002	Paul et al.	204	461	
SMK	AJ 2002/0195344	12/2002	Neyer et al.	204	600	
Bart	AK 2003/0008771	1/2003	Fu et al.	502	159	
SMK	AL 2003/0012657	1/2003	Marr et al.	417	48	
SMK	AM 2003/0020399	1/2003	Moller et al.	313	504	
SMK	AN 2003/0021518	1/2003	Smirnov et al.	385	15	
BMK	AO 2004/0013379	1/2004	Johnson et al.	385	125	
BMK	AP 2004/0020423	2/2004	Lewis, III et al.	117	8	
Bart	AQ 2003/0031407	2/2003	Weisberg et al.	385	28	
Bart	AR 2003/0063426	4/2003	Smirnov et al.	361	159	

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Sub Class	Translation Yes No
	AS						

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

AT	
EXAMINER:	B. Healy

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449		Atty. Docket No.: U11.12-0161	Appl. No.: 10/801,940
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT		First Named Inventor:	
		Kang-Hyun Baek	
		Filing Date March 16, 2004	Group Art: 2873

U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
BM	BA 2003/0103721	6/2003	Padmanabhan et al.	385	24	
BM	BB 2003/0136946	7/2003	Kumacheva	252	500	
BM	BC 2003/0143081	7/2003	Rakestraw et al.	417	48	
BM	BD 2003/0148088	8/2003	Padmanabhan et al.	428	304.4	
BM	BE 2003/0156319	8/2003	John et al.	359	341.5	
BM	BF 2003/0185505	10/2003	Weisberg et al.	385	28	
BM	BG 2003/0206806	11/2003	Paul et al.	417	48	
BM	BH 2004/0017834	1/2004	Sundar et al.	372	39	
BM	BI 6,139,626	10/2000	Norris et al.	117	68	
BM	BJ 6,228,340	5/2001	Imhof et al.	423	338	
BM	BK 6,261,469	7/20001	Zakhidov et al.	216	56	
BM	BL 6,414,043	7/2002	Asher et al.	521	61	
BM	BM 6,436,187	8/2002	Patel et al.	117	68	
BM	BN 6,517,763	2/2003	Zakhidov et al.	264	344	
BM	BO 6,555,945	4/2003	Baughman et al.	310	300	
BM	BP 6,563,981	5/2003	Weisberg et al.	385	28	
BM	BQ 6,589,629	7/2003	Bao et al.	428	144	
BM	BR 6,625,364	9/2003	Johnson et al.	385	127	

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Sub Class	Translation Yes No
	BS						

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

BT	
EXAMINER:	DATE CONSIDERED:

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449		Atty. Docket No.:	Appl. No.:
		U11.12-0161	10/801,940
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT		First Named Inventor:	
		Kang-Hyun Baek	
		Filing Date	Group Art:
		March 16, 2040	2873

U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
GMW	CA 6,680,013	1/2004	Stein et al.	264	44	—
CB						
CC						

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Sub Class	Translation Yes No
GMW	CD	1 247 820 A1	10/2002	EPO	385	122X	X
GMW	CE	1 081 513 A1	3/2001	EPO	385	122X	X
GMW	CF	WO 99/01766	1/1999	WIPO	385	122X	X
GMW	CG	WO 99/47570	9/1999	WIPO	385	122X	X
GMW	CH	WO 00/21905	4/2000	WIPO	385	122X	X
GMW	CI	WO 00/50771	8/2000	WIPO	385	122X	X
GMW	CJ	WO 01/18283 A1	3/2001	WIPO	385	122X	X
GMW	CK	WO 01/55484 A2	8/2001	WIPO	385	122X	X
GMW	CL	WO 01/62830 A2	8/2001	WIPO	385	122X	X
GMW	CM	WO 01/66833 A1	9/2001	WIPO	385	122X	X
GMW	CN	WO 01/96635 A2	12/2001	WIPO	385	122X	X
GMW	CO	WO 01/86038 A2	11/2001	WIPO	385	122X	X
GMW	CP	WO 02/059656 A2	8/2002	WIPO	385	122X	X
GMW	CQ	WO 02/059663 A1	8/2002	WIPO	385	122X	X
GMW	CR	WO 02/061467 A2	8/2002	WIPO	385	122X	X
GMW	CS	WO 02/091028 A2	11/2002	WIPO	385	122X	X

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

CT	
EXAMINER:	B. Healy
	DATE CONSIDERED: 12/2/05

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449		Atty. Docket No.: U11.12-0161	Appl. No.: 10/801,940
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT		First Named Inventor:	
		Kang-Hyun Baek	
		Filing Date March 16, 2004	Group Art: 2873

U.S. PATENT DOCUMENTS

Examiner Initial	Document No.	Date	Name	Class	Sub Class	Filing Date If Appropriate
DA						
DB						
DC						
DD						

FOREIGN PATENT DOCUMENTS

		Document No.	Date	Country	Class	Sub Class	Translation Yes No
BH	DE	WO 02/33461 A2	4/2002	WIPO	385	122X	X
BH	DF	WO 02/44301 A2	6/2002	WIPO	385	122X	X
BH	DG	WO 02/101474 A2	12/2002	WIPO	385	122X	X
BH	DH	WO 03/007663 A1	1/2003	WIPO	385	122X	X
BH	DI	WO 04/009724 A2	1/2004	WIPO	385	122X	X
BH	DJ	WO 04/013383 A1	2/2004	WIPO	385	122X	X
	DK						
	DL						
	DM						
	DN						

OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

BH	DO	"Optical coupling between monocrystalline colloidal crystals and a planar waveguide", by Y. Zhao et al., <u>APPLIED PHYSICS LETTERS</u> , Vol. 75, No. 23, pgs. 3596-3598, (6 December 1999).
BH	DP	"Two-dimensional colloidal crystal corrugated waveguides", by Y. Zhao et al., <u>OPTICS LETTERS</u> , Vol. 24, No. 12, pgs. 817-819, (June 15, 1999).
BH	DQ	"Optical Demultiplexing in a Planar Waveguide with Colloidal Crystal", by I. Avrutsky et al., <u>IEEE PHOTONICS TECHNOLOGY LETTERS</u> , Vol. 12, No. 12, pgs. 1647-1649, (12 December 2000).

EXAMINER:

B. Kelly

DATE CONSIDERED:

12/2/05

EXAMINER: Initial if citation considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.